

PATENT

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No.: 10/602,586 Confirmation No.: 1642  
Applicant(s): Kevin J. Kwitkowski et al.  
Filed: June 24, 2003  
Art Unit: 1771  
Examiner: Lynda Salvatore  
Title: FABRIC SOFTENER DRYER SHEET SUBSTRATE

Docket No.: 038712/264882  
Customer No.: 00826

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

## DECLARATION UNDER 37 C.F.R. § 1.131

Sir:

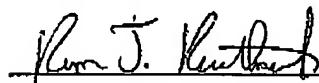
I, Kevin J. Kwitkowski, declare that:

1. I am a research and development engineer employed by Reemay Inc. (a division of BBA Nonwovens) to whom the above-identified patent application has been assigned.
2. I am a joint inventor of the invention described and claimed in the above-referenced patent application.
3. Prior to November 30, 2001, my co-inventor and I conceived the invention defined in the claims of the above-identified application. In particular, prior to November 30, 2001, we discovered that we could increase the caliper of our company's Reemay® brand spunbond polyester nonwoven fabric of the grade that we manufacture for use as fabric softener dryer sheet substrate by controlling the consolidator temperature in our manufacturing process. In support of this, I enclose a copy of the invention disclosure that we prepared and submitted, together with an accompanying chart with a graph of the caliper of our production spunbond polyester nonwoven fabric dryer substrate over a period of several days. The dates on the chart and the dates referred to in the invention disclosure have been redacted, but are prior to

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November 30, 2001. Also prior to November 30, 2001, we recognized that now that we had the ability to control and to increase the thickness of the nonwoven fabric, we could reduce the basis weight of the fabric by running the collection belt at a higher speed and thereby achieve a lower basis weight fabric (no more than 0.50 ounces per square yard) with a thickness comparable to the thickness of the higher basis weight dryer sheet substrate fabric. Tests carried out on the resulting fabric confirmed that the fabric had fabric softener release properties essentially identical to heavier basis weight fabrics with a basis weight of 0.52 and 0.54 ounces per square yard, as shown in Figure 1 and in the examples in the present patent application. This work resulted in the product and process described and claimed in the present patent application. This work was done in the United States.

4. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that willful false statements may jeopardize the validity of the application or any patent issuing thereon.

  
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Kevin J. Kvitkowski

Date: 12/21/2005

## BBA Nonwovens - Invention Disclosure

**I. THIS INVENTION RELATES TO:**

Caliper control of Spunbonded Polyester Nonwoven.

**II. PURPOSE OF INVENTION:**

This invention provides a means of increasing the caliper of Reemay (R-2) spunbonded polyester web versus standard production.

**III. DATE INVENTION FIRST CONCEIVED OR THOUGHT OF:****IV. DATE FIRST SKETCH OR DRAWING WAS MADE, and NUMBER:****V. DATE FIRST WRITTEN DESCRIPTION WAS MADE:****VI. DATE AND CIRCUMSTANCES UNDER WHICH INVENTION WAS FIRST DISCLOSED TO ANOTHER PERSON (S) AND NAME (S):**

Harry Barnes.

**VII. DATE FIRST SAMPLE WAS MADE (IF ANY):****VIII. DATE AND PLACE OF FIRST SUCCESSFUL OPERATION:****IX. DATE AND PLACE THE INVENTION WAS FIRST OFFERED FOR SALE, SHOWN TO CUSTOMER, OR, IF THE INVENTION IS A PROCESS, THE DATE THE PROCESS WAS FIRST OPERATED TO PRODUCE PRODUCT WHICH WAS SOLD:****X. DATE OF INTENDED SALE IN COMMERCIAL OR PUBLIC SHOWING:**

Upon completion of testing, sometime in

**XI. THIS INVENTION IS ALSO DISCLOSED AND DESCRIBED IN THE FOLLOWING NOTEBOOK ENTRY OR OTHER RECORDS (IDENTIFY AS TO NAME, PAGES, ETC, AND ATTACH COPIES):**

N/A

**XII. KNOWN PRIOR ART:**

Kinney patent

**1). PATENTS AND PUBLICATIONS:****2). COMMERCIAL ACTIVITY BY ANYONE:**

None known.

**XIII. ADVANTAGES OVER PRIOR ART:**

It has been discovered that by controlling the Reemay consolidator temperature the final thickness of the web can be controlled to some degree. When producing nonwoven webs for end-uses requiring thicker caliper this invention provides a method for increasing thickness.

**XIV. DESCRIPTION OF INVENTION** (Describe the invention fully, clearly, and concisely.

State the features that are believed to be new. State the advantages the invention is believed to have. Use additional pages if necessary. Illustrate by means of sketch, photos, reports, etc., whenever possible, and attach this to this disclosure. Have sketches signed, witnessed, and dated):

It has been learned that by controlling the surface temperature of the R-2 consolidator, the thickness of the web can be controlled (see attached graph- "CTHICK Profile"). Specifically, by operating the surface temperature below 90 C, the web was thicker than webs produced at consolidator surface temperatures above 100 C.

SIGNED AND WITNESSED THIS \_\_\_\_ DAY OF \_\_\_\_ 200\_\_\_\_

AT \_\_\_\_\_ (city) \_\_\_\_\_ (state)

INVENTOR: *Gilbert W Brown*

INVENTOR:

INVENTOR:

INVENTOR:

Read and Understood by (2 witnesses)

WITNESS: *Edward Keith Willis*

WITNESS: *Edward J. Brown*

Print each Inventor's full name below and include all of the requested Information:

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FULL NAME: Wayne Brown

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(inventor's residence)

CITY, STATE, ZIP: Springfield TN 37172

CITIZENSHIP: U.S.A.

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FULL NAME:

STREET ADDRESS:

(inventor's residence)

**CITY, STATE, ZIP:**

**CITIZENSHIP:**

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ALSTON BIRD LLP

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**CTHIK Profile**  
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